

Listing of Claims:

1. (previously amended) A plastic log produced by the method of claim 6 having an average diameter greater than 2 inches, a flexural modulus at 40 °F of at least 70,000 psi and a diameter deviation in the range of 2 to 60%.
2. A log of claim 1 comprising at least 80% of thermoplastic material.
3. A log of claim 2 wherein said thermoplastic material comprises at least one polyolefin selected from the group consisting of polyethylene and polypropylene.
4. A log of claim 3 further comprising at least one other polymeric material having a melt temperature at least 20 °C higher than the melt temperature of said polyolefin.
5. (previously amended) A plastic log of claim 1 having deviations in diameter simulating a natural wood log comprising at least 80% polypropylene and having an average diameter greater than 2 inches, a flexural modulus at 40 °F of at least 90,000 psi and a diameter deviation defined by the algorithm $((D-d)/D) \times 100$ in the range of 2 to 60%, where D is the maximum diameter and d is the minimum diameter..
6. A method of producing a plastic, cylindrical log comprising extruding through a circular die a plastic material to form a cylindrical mass with a molten surface and cooling said molten surface with an air stream from an annular nozzle proximate to said die.
7. A method of claim 6 wherein said shape is further cooled by contacting with an aqueous fluid.
8. A method of claim 7 wherein said shape is further cooled by natural air convention around a supported length of log.
9. A method of claim 8 further comprising pulling said shape from said die.
10. (currently amended) A method of claim 6 wherein air is blown from said annular nozzle along the surface of the extruded shape in the direction of extrudate motion .

Amendment of Claims

Amendment to claims are reflected in the listing of claims which begins on page 2 of this paper. Support for new claim 10 where the claimed method is characterized by air blown from an annular nozzle along the surface of the extruded shape in the direction of extrudate motion is found in the specification at page 6, lines 17-19, and in Figure 1. This listing of claims will replace all prior versions, and listings, of claims in the application.

Remarks in Traverse of the Rejection

Applicant traverses the outstanding rejection of method claims 6-9 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,049,760 (Lozach) which discloses the extrusion of foamed thermoplastic profiles which are expanding on exiting of a shaped die. Lozach's profile is contacted with a cooling fluid shaping device comprising a plurality of jets modify the shape of the expanding profile when impinging air of different intensity effects variable cooling over the surface of the profile.

Contrary to Lozach, in applicant's method according to claim 6 a thermoplastic cylindrical log is produced by extruding through a circular die and cooling with an annular nozzle which applies air around the circumference of the extruded shape. There is no motivation in Lozach to combine a plurality of jets into an annular nozzle which inherently applies a consistent air flow around the full shape of the extrudate.

Further unlike Lozach, in applicant's method according to claim 10 a single stream of air from an annular nozzle does not impinge the surface of the extrudate (e.g. perpendicularly, as shown in Lozach's drawings) but, rather, is blown along the surface of the extruded shape in the direction of extrudate motion. There is no suggestion or motivation to a person of ordinary skill in the art by Lozach to change

the direction of air jets from impinging into a surface to modify the shape of an expanding profile to directing the air along the surface in the direction of extrudate motion.

Such gross modification requires something more than the obvious changes that can be recognized and adopted by a person of ordinary skill in the art. Applicant submits that the method characterized by claims 6-10 would not have been obvious to a person of ordinary skill in the art cognizant of the Lozach methods, apparatus and objectives. Reconsideration and withdrawal of the rejections of claims 6-9 and new claim 10 are respectfully requested in view of the above amendment and remarks. The Examiner is urged to contact the undersigned attorney if further amendment would expedite allowance of claims.

Respectfully submitted,



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